ACTi MobileGo!
User Manual

Version 1.1

05/24/2011

ACTi
Connecting Vision

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Overview

Introduction

MobileGo! is now compatible with both ACTi software NVR and Standalone NVR (SNVR). On SNVR, the App is ready to go without further configuration or installation. On software NVR, please install ACTi Mobile Server to do streaming re-direction.

ACTi Mobile Server provides streaming re-direction from software NVR Servers to web clients and MobileGo! that users are able to watch MJPEG format live video/playback from NVR Servers. Users do not need to modify IP devices or NVR settings for Mobile Server, because the service will automatically encode video in the right format. MobileGo! can directly access to ACTi Mobile Server through web service.

The service architecture is described in the following figure. Please note that the architecture may change to fit different applications.
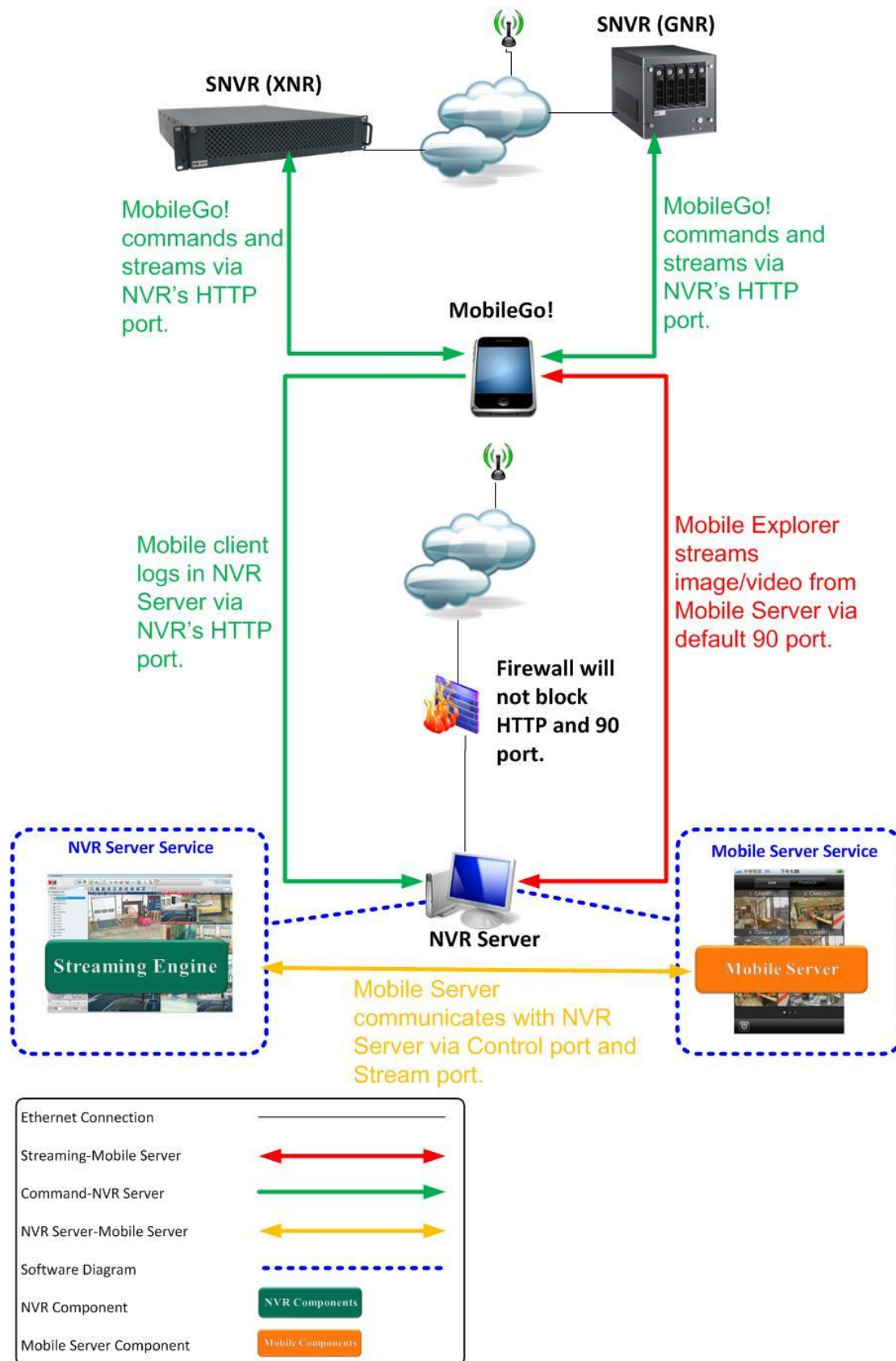
Fig. 1   Network Architecture

Main Specification

Live	Output Format	MJPEG/JPEG. For details, please refer to Feature Comparison Table
	Supported Devices	iPhone, iPod Touch, and iPad (HD)
	NVR Server/ Standalone NVR	ACTi NVR Enterprise 2.2 SP3 or later. ACTi XNR, GNR.
	Display Layout	In accordance with NVR layout setup
	Thumbnail Display	6-grid display panel
	NVR Supported	Single NVR Server
	PTZ Control	Pen, tilt, optical/digital zoom, and go-to-present
	Channels Supported	Up to 64 Channels per NVR
Playback	Single Channel Playback	Playback video from single channel, timestamp, playback control panel, and rewind/fast forward 1x/2x/4x/8x.
	Search	Time based and event type based search.
Setup	Resolution	High 640x480, Low 320x240 (Browser based is not configurable).
	Connection type	Auto detect 3G/WiFi connection and auto change resolution to low/high.

Software NVR System Requirements

PC Specification:

1. Minimum PC specification:

PC Specifications	16 Channels	32/48/64 channels
	Recommended	Recommended
CPU	Intel Core 2 Quad 2.66 GHz	Intel i5-670 3.46 GHz
Memory	4GB +	4GB +
Network	Gigabit Ethernet	Gigabit Ethernet
Graphics Card	nVidia 9800 GT or better	nVidia GTS 250 or better
Graphics Card memory	512 MB or more	512 MB or more
Hard Drive Space	2 GB for NVR, 250 GB for Video	2 GB for NVR, 1TB for Video

2. You may install NVR Server and NVR workstation onto the same PC with Mobile Server.

3. Before starting to record, be sure to reserve storage capacity of 20GB or above on the disk drive for recording.

4. Supported Windows OS for 32 bit and 64 bit systems are listed below:

OS	Version	32 bit	64 bit
Windows 7	Professional	Y	Y
Windows 7	Enterprise	Y	Y

- For 64 bit NVR version, 64 bit Internet Explorer is not supported. Please use 32 bit Internet Explorer.

Notice: Please consult your Network Administrator for service bandwidth capacity for user connections.

Installation

General Configuration

After you installed NVR server in your PC and completed all NVR configurations, please execute the file 'Mobile Server.msi' in the same PC. Mobile Server supports MPEG-codec-enabled browsers, for example, Firefox, Google Chrome, and Safari.

After it is installed, you have to configure IP address and ports to let the web clients access Mobile Server. There is one file under NVR folder that you have to edit:

C:\Program Files\NVR\IPControlCenter\m\config.xml.

Please open this file with Notepad and you will see the content as below.
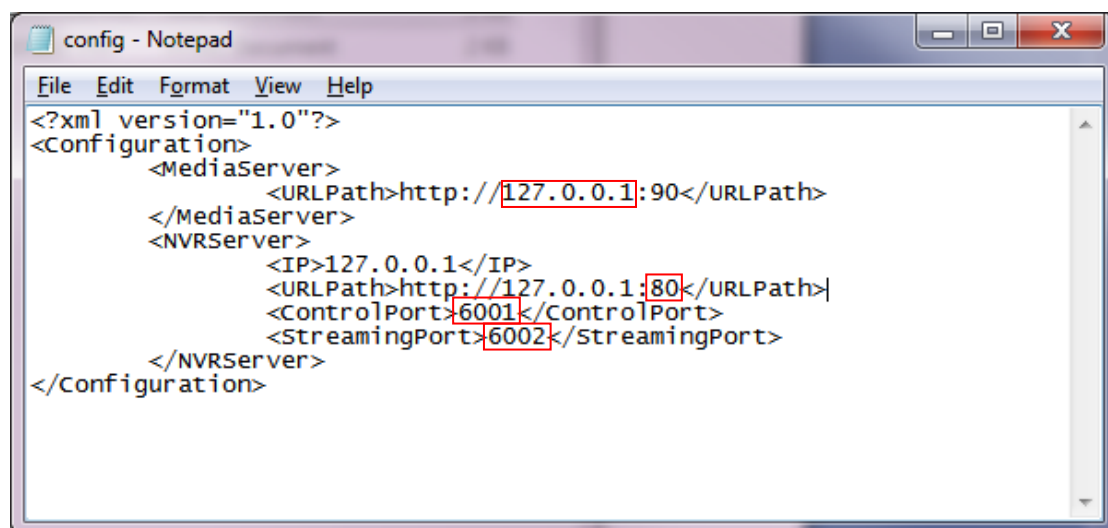
Fig. 2   Configurations of Mobile Server

Please follow the instructions to modify parameters according to the settings of your NVR server.

(1) Media Server

Fig. 3   Media Server URL

- **< URL Path>:**

    The URL Path consists of the address and port of Mobile Server.

- **IP:** Please modify URL path to the IP address of Mobile Server.
- **Port:** Mobile Server uses default port 90 to send video stream to web client. You don't need to change it here.

For example, if the PC which you install Mobile Server has the IP address **220.228.146.21** and the media server uses port 90, and then you should use **http:// 220.228.146.21:90** as URL path.

(2) NVR Server

Fig. 4   NVR ports

- **< IP>:** It is the IP address of NVR. Mobile Server will use it to communicate with NVR server. Since we install Mobile Server in the same PC with NVR server, we can use 127.0.0.1 as the IP address.
- **<URL Path>**

    The URL Path consists of the address and HTTP port of NVR.

    -IP: This URL path will be used by Mobile Server to communicate with NVR server. Since we install Mobile Server in the same PC with NVR server, you can leave the IP address as 127.0.0.1.

    - HTTP port: Please change it to your NVR server's HTTP port. Default is port 80. You do not need to change this if your NVR HTTP port uses default port number 80.

    For example: if the HTTP port of your NVR is **8080**, the URL Path will be **http://127.0.0.1:8080**.

    <Control Port> Please change it to your NVR server's control port. Default is 6001

- **<Streaming Port>** Please change it to your NVR server's streaming port. Default is 6002

Please restart your PC after you are done with all configurations to make them take effect.

PTZ Camera Configuration

For PTZ function, you will also have to configure it for each PTZ camera manually. Please follow the instruction below and configure it through the following steps.

Step1: Please enable PTZ function in NVR for each PTZ camera. And please make sure PTZ function work in NVR with proper settings.

Step2: Please go to Media Server folder "C:\Program Files\ACTi\Mobile Server\Media Services\config\device\", and open MediaSourceConfig.xml file with Notepad. We are going to edit the settings of PTZ camera in this file.
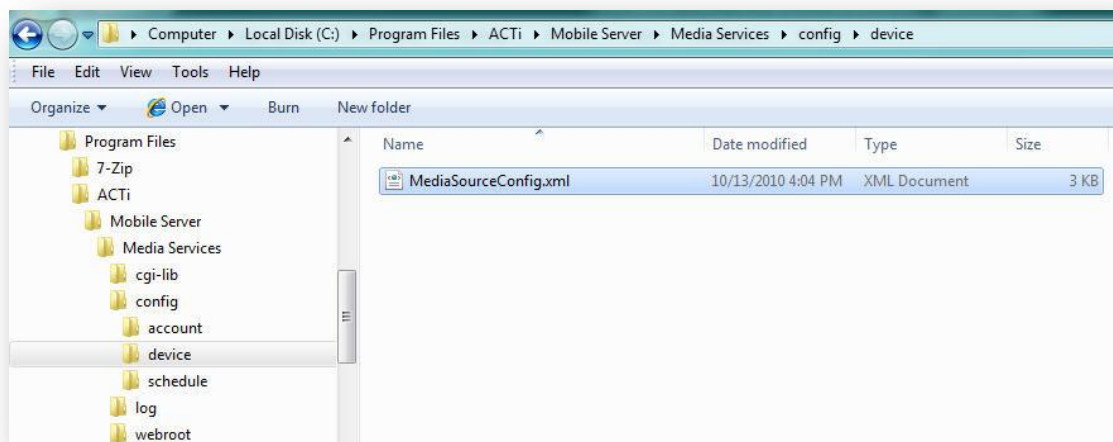
Fig. 5   Configuration file

Step3: After opening it, you will see the file as below. What we are going to do now is to change the settings to what settings PTZ camera currently has. We will need you to find those settings in NVR and write them back to MediaSourceConfig.xml file.

Fig. 6   Configurations of PTZ Cameras (Example)

First, you will have to find the PTZ camera that you have according to Model ⑨ and Production Id ⑩. After that, you will be able to start to configure all the other fields. Items from (1) to (9) need to be properly configured. If not, the PTZ function won't be able to work.

(1) **Media Source id:** Please fill in the Camera ID in NVR Server. You will be able to find the [Camera ID] for this camera in Camera Tree of NVR Server.

(2) **Identify Name:** Please fill in the camera ID in NVR Server

(3) **Control Port:** Please fill in the control port of the PTZ camera

(4) **HTTP port:** Please fill in the HTTP port of the PTZ camera

(5) **Password:** Please fill in the password which is used to login this PTZ camera

(6) **Streaming Port:** Please fill in the steaming port of the PTZ camera

(7) **Unicast IP:** Please fill in the IP address of the PTZ camera

(8) **Username:** Please fill in the user name which is used to login PTZ camera

(9) **Model:** It shows the model name of the PTZ camera

(10) **ProductionId:** It shows the production ID of the PTZ camera

User editable scope is between <MediaSourceConfiguration> and </MediaSourceConfiguration> labels. And the text between <MediaSource id="{CAMERA_ID}"> and </MediaSource> is to describe the attributes for specified PTZ camera "{CAMERA_ID}". Please do not modify settings outside of this range. If there are multiple PTZ cameras, please copy the content of label <MediaSourceConfiguration> and paste in the following of the original one, and then modify items as described above.

Things you need to know before you start

Mobile Server service is a web service working with an NVR Server. Please make sure the NVR Server is working properly, and port connection is free from firewall or other barriers. Otherwise, thumbnails or video traffic may be blocked out and unable to be displayed.

NVR Server configuration should still go through NVR Workstation / Web client and is NOT included in Mobile Server.

Mobile Server doesn't support audio functions, so before users start to run the system, please disable "Audio In" for every single channel.

MobileG0! doesn't support auto reconnection of video streaming, so file recording length is recommended to be 2-min or shorter.

Please enable PTZ function in ActiveSetup for PTZ cameras. Otherwise, PTZ and Go-to-present functions are not applicable.

Please disable PTZ function in ActiveSetup for non-PTZ cameras. Otherwise, PTZ and Present icons will be displayed while live video is streaming.

System Startup

How to connect to Mobile Server?

Mobile Server doesn't support IE, so please use MPEG-codec-enabled browsers to manipulate the service.

Given a NVR server address 220.228.146.21 and HTTP port 8080, you will have to use the address http://220.228.146.21:8080/m/ to connect to the Mobile Server from your browser.

There is a demo of Mobile Server. You may try it before you have your own Mobile Server. Please use your safari browser and connect to http://mobile.acti.com/m/ with user name/password guest/guest.
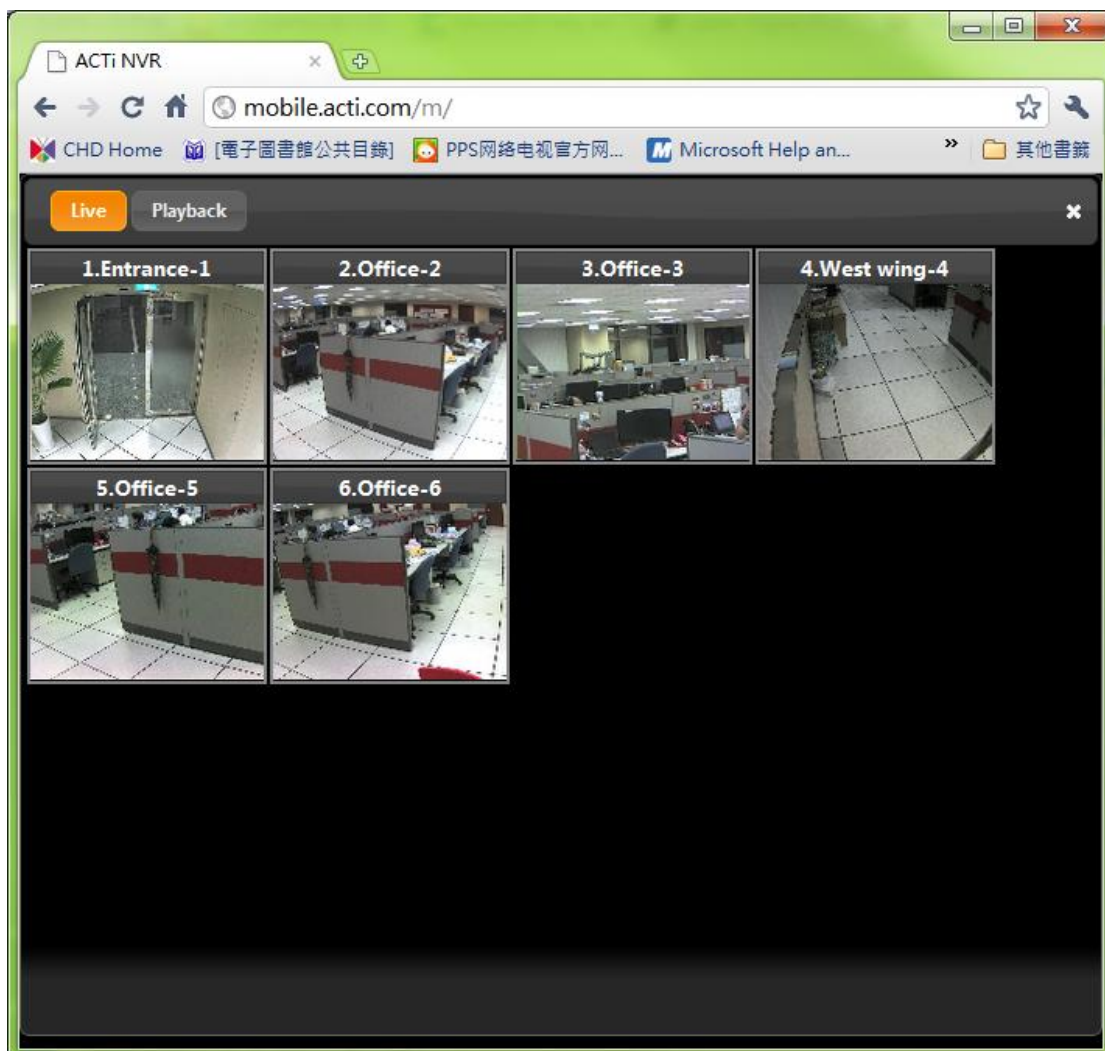
Fig. 7   Browser based

How to connect to MobileGo! ?

If MobileGo! is installed in your iPhone, iPod Touch, or iPad, please log in NVR IP mobile.acti.com, port 80 with user name/password guest/guest.

Operating Instructions

Login

Upon tapping on MobileGo! on iPhone desktop, the program starts to run and displays as in the following figures.

<div align="center">

Fig. 8   Login

</div>

1 **Username**

Please key in account username. Default username is **Admin**.

2 **Password**

Please key in account password. Default password is **123456**.

3 **NVR IP**

Please key in an IP address of an ACTi NVR Server in which Mobile Server is properly installed and configured.

4 **NVR Port**

Please key in the port number of the NVR Server. The default HTTP port for accessing to NVR is 80.

Live

Live Main Screen

Upon login of the system, **Live** tab will automatically display thumbnails of all the channels captured in 6-grid display. Users may swipe pages to see more channels.

Module Tabs

Display Panel
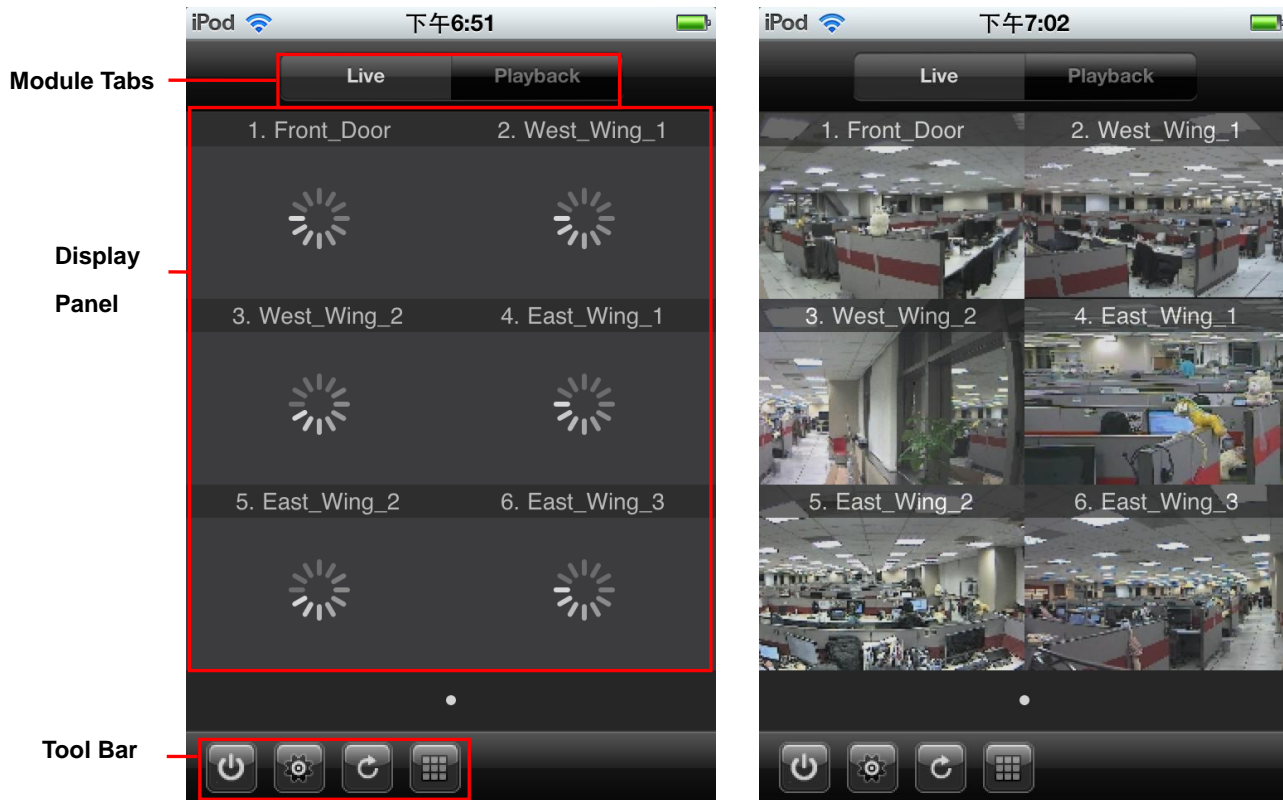
Tool Bar

<p align="center">**Fig. 9　Live Main Screen**</p>

Summary of the Live Main Screen

1. **Module Tab**

    To switch modules, user may click on one of the tabs to change modules between **Live** and **Playback**.

2. **Tool Bar**

    2.1 **Login form**

    To switch NVR Server, please click login form button to change destination.

    2.2 **Setup**

    To configure resolution and **Idle Timer**. Toggle OFF **Idle Timer** to keep display always on.

Fig. 10   Setup

2.3 **Refresh**

To capture snapshots again.

2.4 **Layout**

To switch pre-defined layouts saved in NVR Server.
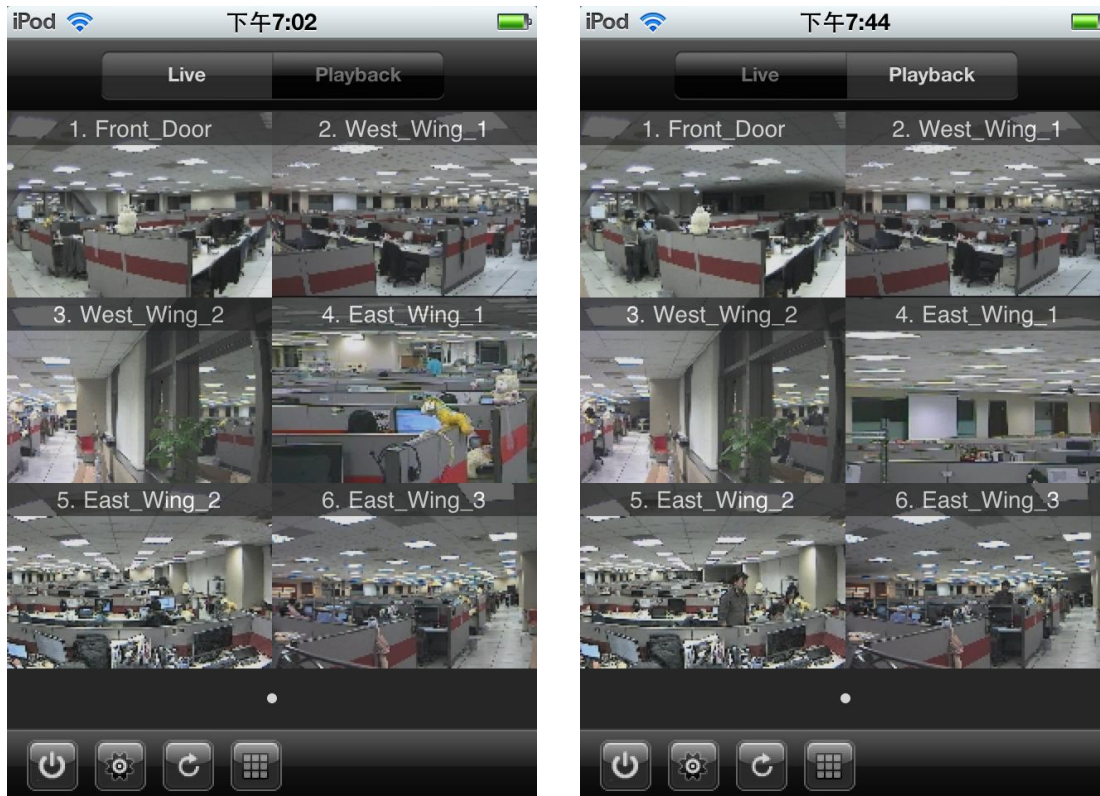
3. **Display Panel**

Still images captured on the spot when users log in. Click on a panel to start video.
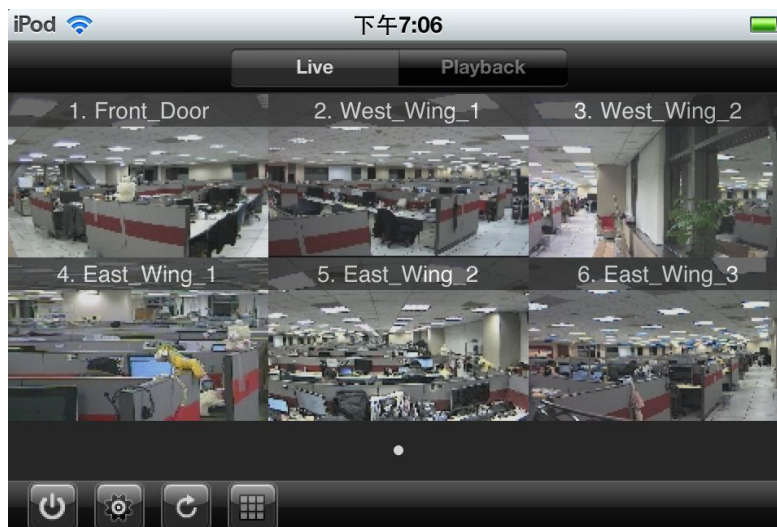
Module Tabs

There are two modules in the system, **Live** and **Playback**, to carry out live streaming and playback. Upon switch in the page, snapshots would be displayed as in the following figures. Portrait or Landscape is automatically sensed by device position.

Fig. 11 Live & Playback in Portrait orientation

Fig. 12 Landscape orientation

Live Streaming

In **Live** main page, tap on a channel to start live view. Click on **Back** to go back to the previous page. Click on **Snapshot** to sanpshot the image. A prompt window would inform that the snapshot is saved. Click on **OK** and go to the gallery to check out snapshots.
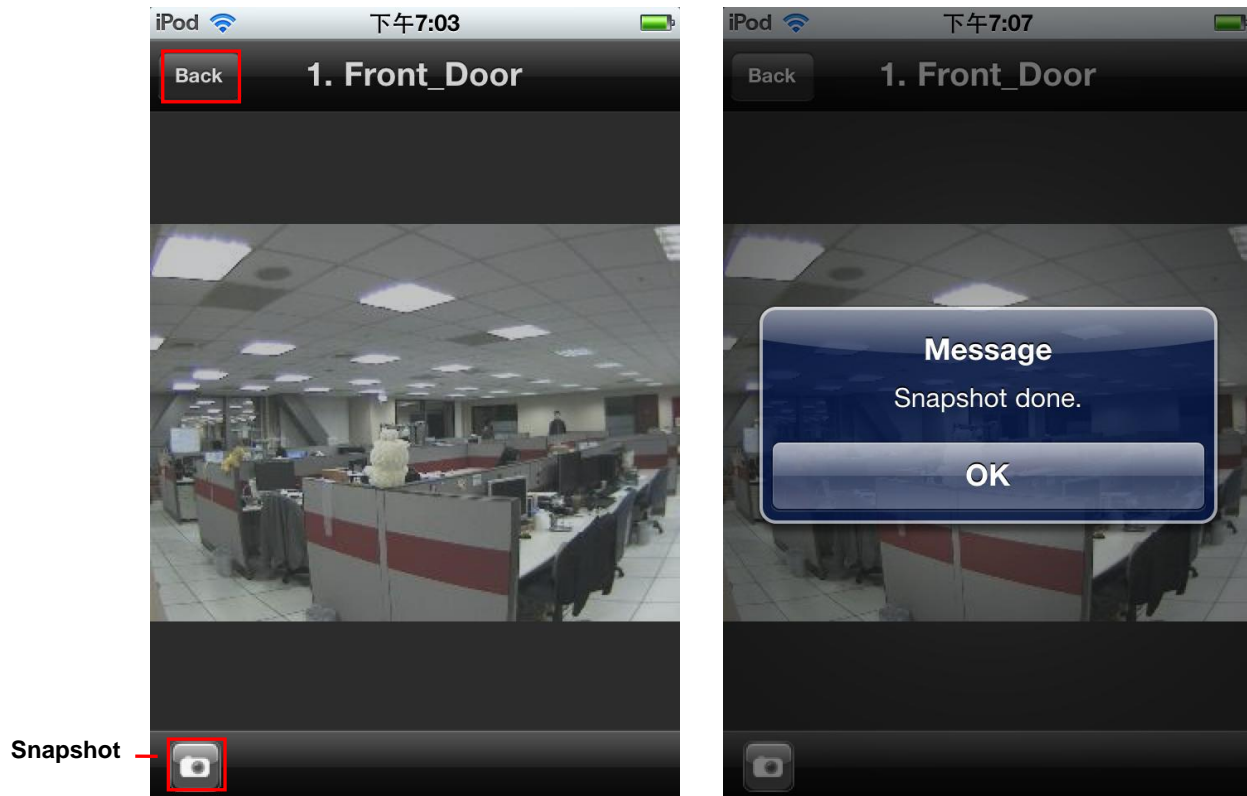
Fig. 13   Live streaming

Fig. 14   Streaming - landscape orientation

When under landscape orientation, tap on the screen to invoke tool bars.

Channel Swiping

Users may swipe channel backword and forward while streaming by swiping the screen directly or clicking on the pager.
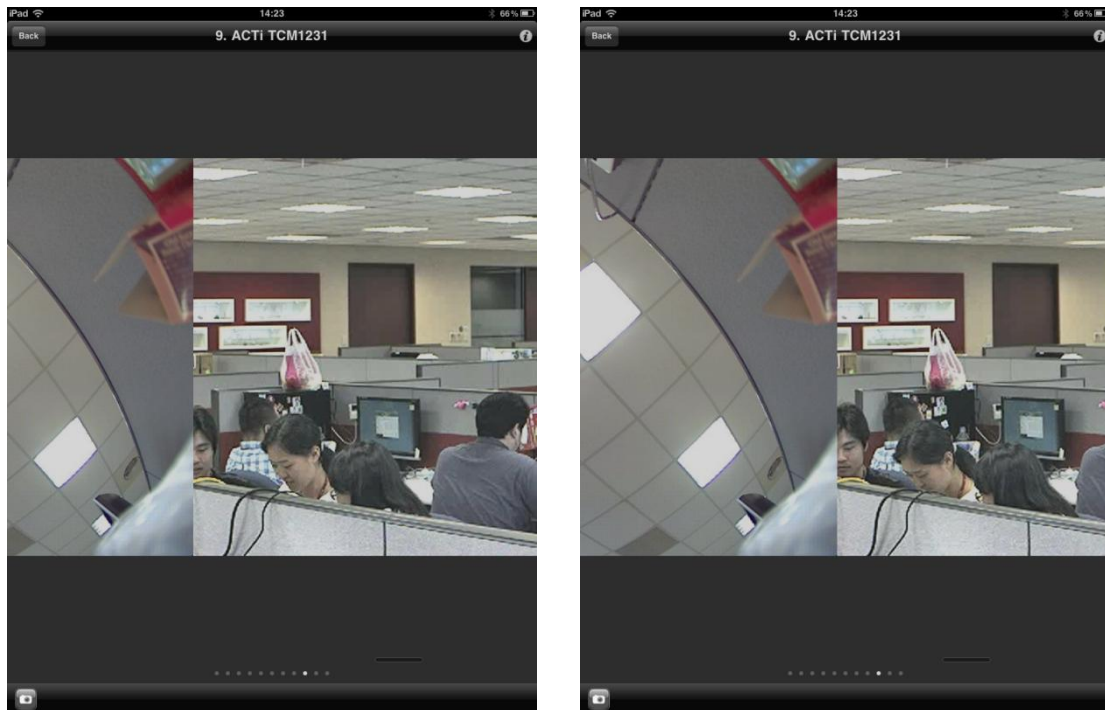
Fig. 15   Channel swiping

PTZ Function

To manipulate PTZ function, please make sure that

1. Enable PTZ on NVR Server.

    Please try to control PTZ on ActiveMonitor first to confirm that PTZ function is properly set.

2. Configure **MediaSourceConfig.xml** for **MediaSource id**, and **UnicastIP**. (For details, please refer to PTZ Camera Configuration)

Notice: If PTZ configuration is incorrect, PTZ function will fail to operate although PTZ buttons would present as expected.

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Fig. 16   Live streaming with PTZ control

1. **Snapshot**

   Click on **Snapshot** button to sanpshot the image.

Fig. 17   Snapshot

2. **PTZ**

   When **PTZ** button is enabled, transparent indicators would display in the pane. Click

   arrows, '+', or '-' to move, zoom in or zoom out. Tap on the indicator to command one move.

   Hold the indicator to command contineuous move.

3. **Go-to-preset**

Click on **Go-to-present** button, a list will show pre-defined layouts.
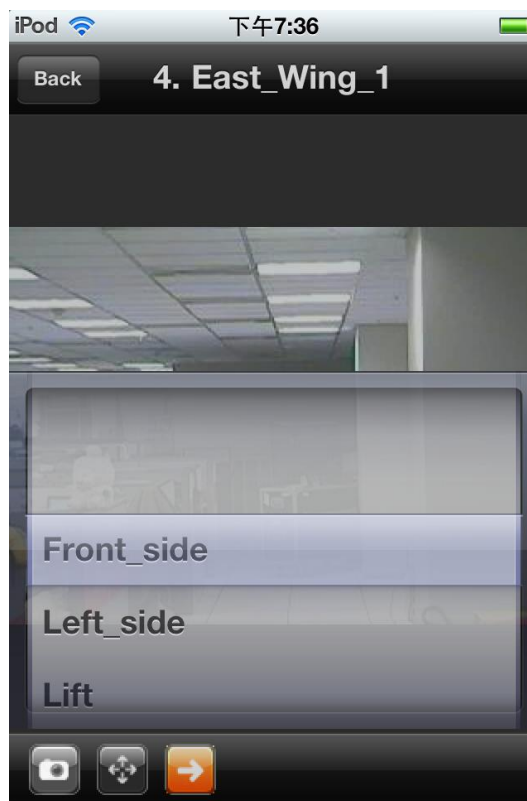
Fig. 18   Go-to-preset in portrait orientation
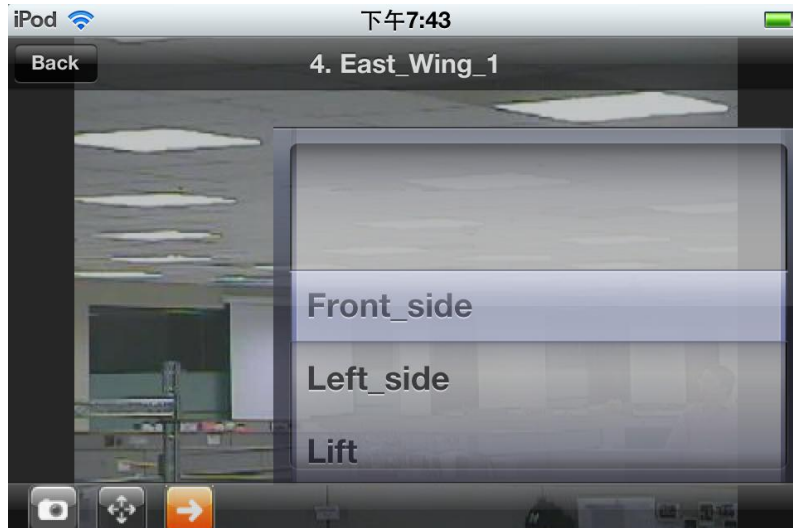
Fig. 19   Go-to-preset in landscape orientation

ePTZ Function

MobileGo! supports ePTZ by double-click on the video to zoom in. When ePTZ is on, a Position Window will indicate the position of the current view. See the following figure. If Go-to-preset button is clicked under ePTZ mode, ePTZ will automatically be switched off and start to pen, tilt, or optical zoom.

Fig. 20   ePTZ

Exit ePTZ and swipe the screen to switch channels.

Playback

MobileGo! provides playback function. In **Playback** module, tap on one of the channel, the page will switch to **Video Search**.
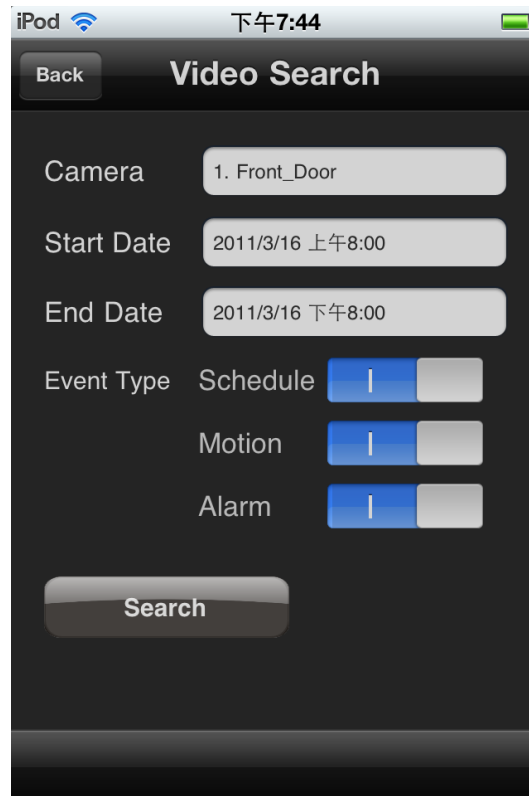
<p style="text-align:center">Fig. 21　Video Search</p>

1　**Camera**

Users may switch channels via clicking on camera name in the text field.

2　**Start Date**

Select date and time. Default start time is 8 AM of the day.

Tap on a text field to open time gouge, roll it to a wanted time, and then tap on the text field again to close the gouge.

Notice: Gouge will remain on the screen if it is not closed.

3　**End Date**

Select a period of time starting from **Start Date** to query and list all video clips within the period. *The default end date is 12 hours later from start date.*

Fig. 22   Select Start Date and End Date

4   **Event Type**

4.1   **Schedule**

Search for schedule recordings.

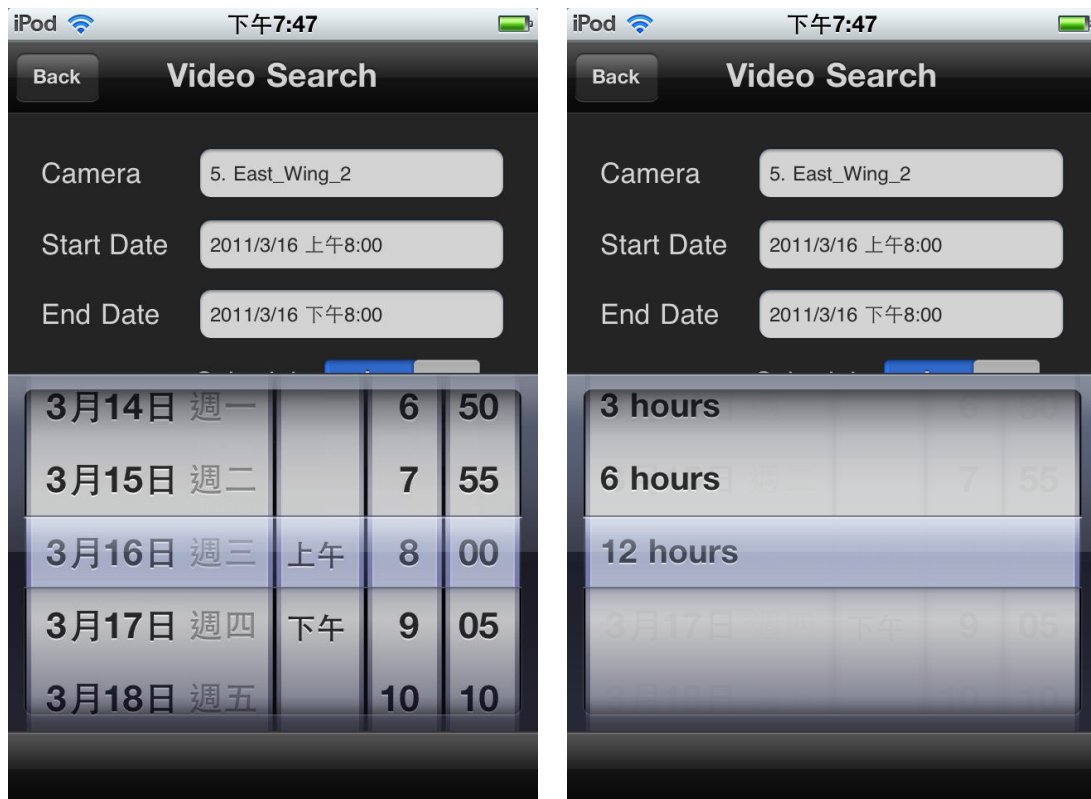*Notice: If a channel has multiple rules of recording concurrently, for example, schedule with motion, then only schedule will be recognized and performed.*

4.2   **Motion**

Search for motion triggered recordings.

4.3   **Alarm**

Search for Digital Input triggered recordings.

Search Result

Video clips will be listed in **Search Result** page regarding search criteria. Tap on one of the listing, playback will start to stream.

Notice: Please notice that recording file length and pre-event recording length are set in NVR Server configuration. Users are not allowed to change any NVR settings through MobileGo!.
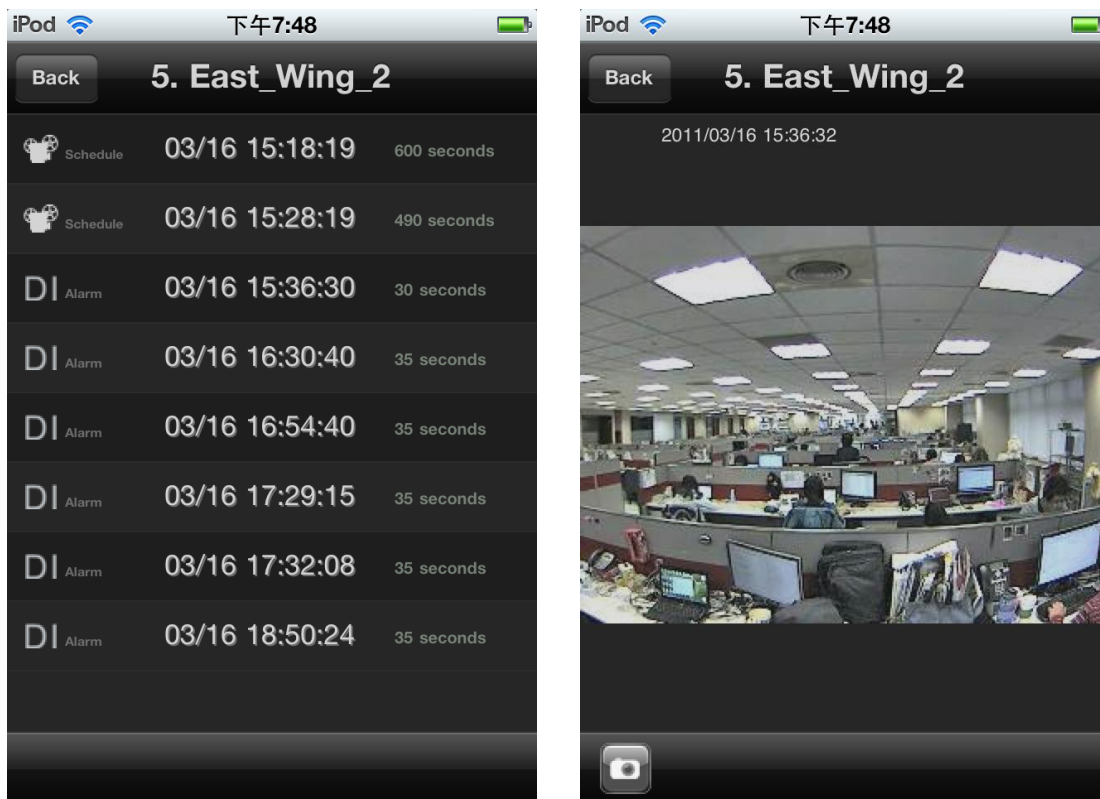
Fig. 23   Search Result & Playback

Fig. 24   Playback in full screen landscape orientation

Playback Control Panel and Time Track

For SNVR, click on the display panel to show control panel in terms of Play, Pause, Fast Rewind, Fast Forward, Previous, Next, and a time track. Slide the time track to select a designated time to start playback.

To switch video clips, swipe the screen or click on the pager.

Fig. 25   Playback control buttons
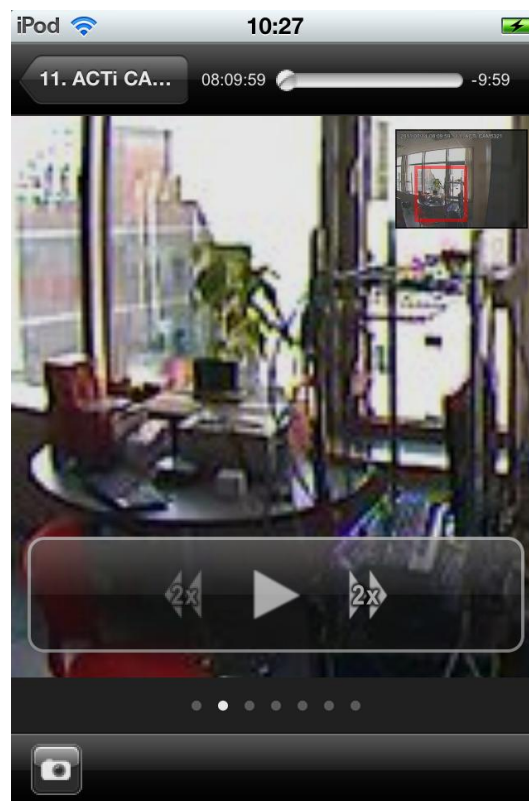
Fig. 26   **Playback ePTZ**

Exit ePTZ by double clicking on the screen again. When ePTZ is on, swiping page is inactive.

Appendix

Appendix A: Limitation

1. Mobile Server does not provide streaming re-connection, therefore once playback streaming is interrupted due to networking problems, the file cannot be restarted from where it is disconnected. Users must playback the file from the beginning. SNVR doesn't have this limitation.
2. Recording file length shorter then 2-min is recommended to reduce chances of networking disconnection.
3. In this version, MobileGo! does not support audio function. Please disable "Audio In" in camera firmware.
4. SNVR does not support channel layout.

Appendix B: New Features

1. Support Standalone NVR (SNVR).
2. Support WiFi/3G auto-detection for high/low video resolution auto-setup.
3. Support SNVR playback control panel and time track.
4. Support channel swiping.
5. Support digital zoom with two fingers sliding apart to enlarge image.

Appendix C: Special Notices

1. MobileGo! playback behavior complies with SNVR
2. While streaming, video time code shall not be interrupted due to video disconnection (connection failed).
3. Upon entering the playback page, the panel will display still image of the first frame.
4. If playback streaming is disconnected (connection failed), the panel will display the last image it received from SNVR.
5. While streaming, if the recording file is broken or SNVR cannot provide video, MobileGo! will display the last frame.

Appendix D: Feature Comparison Table

	Live view				Playback				Recording Type	Codec	Audio In
	Resolution & Frame rate	PTZ	Digital zoom	Time code	Resolution & Frame rate	Digital zoom	Behavior	Time code			
SNVR	640x480 or 320x240 @1FPS	V	V	X	640x480 or 320x240 @1FPS	X	Comply with SNVR	V	Time base	Multiple JPEG	X
NVR2	640x480 or 320x240 @3FPS	V	V	X	640x480 or 320x240 @3FPS	X	Comply with NVR2 (auto playback)	V	File base	MJPEG	X
Browser	320x240 @3FPS	V	V	X	320x240 @3FPS	X	Comply with NVR2 (auto playback)	V	File base	MJPEG	X

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Appendix E: Version Comparison Table

		3G/WiFi Auto Detect 1*	Low Memory Warning	Login Input Check 2*	Progress Bar 3*	Permission Check 4*	Multi Languages 5*
MobileGo! v1.0	SNVR	X	X	X	X	X	X
	NVR 2.2	X	X	X	X	X	X
	NVR 2.3	X	X	X	X	X	X
MobileGo! v1.1	SNVR	V	V	V	V	V	V
	NVR 2.2	V	V	V	V	V	V
	NVR 2.3	V	V	V	V	V	V

1* Add 3G High Resolution at setup page.

2* Auto remove empty spaces at start and end. Auto check input port number of 1 through 65535.

3* Show progress bar while connecting to server, and be able to cancel connection.

4* Permission Check on NVR: Live / Live PTZ / Live Snapshot / Playback / Playback Snapshot, XNR: Live / Live PTZ (regarding camera models) / Playback.

5* Support Languages: Chinese, English, Japanese, Dutch, French, German, Italian, Spanish, Russian, Romanian, and Vietnamese.

		Enhance Selection Form 6*	Live view	Layout	Go-to-preset	Swiping channel
MobileGo! v1.0	SNVR	X	X	X	X	X
	NVR 2.2	X	640x480/320x240@3FPS	V	V	V
	NVR 2.3	X	640x480/320x240@3FPS	V	X	V
MobileGo! v1.1	SNVR	V	640x480/320x240@1FPS	X	V	V
	NVR 2.2	V	640x480/320x240@3FPS	V	V	V
	NVR 2.3	V	640x480/320x240@3FPS	V	V	V

6* Such as Layout selection, Date selection...etc. Show popup in v1.1, better visual effect and

to prevent wrong operation.

		Digital Zoom	CAM-6610 PTZ	Camera Info 7*	Snapshot	Playback
MobileGo! v1.0	SNVR	X	X	X	X	X
	NVR 2.2	X	Wait v2.10.xx formal release	X	V	640x480/320x240@3FPS
	NVR 2.3	X	Wait v2.10.xx formal release	X	V	640x480/320x240@3FPS
MobileGo! v1.1	SNVR	V	Wait v2.10.xx formal release	V	V	640x480/320x240@1FPS
	NVR 2.2	V	Wait v2.10.xx formal release	V	V	640x480/320x240@3FPS
	NVR 2.3	V	Wait v2.10.xx formal release	V	V	640x480/320x240@3FPS

7* Camera Info: NVR shows ID, Name, IP.   XNR shows ID, Name, Manufacture, Model, IP, and Resolution.

		Swiping file	Digital Zoom	Control Media	NVR Recording Type	Search Result Paging	Snapshot
MobileGo! v1.0	SNVR	X	X	X	X	X	X
	NVR 2.2	X	X	X	File base	X	V
	NVR 2.3	X	X	X	File base	X	V
MobileGo! v1.1	SNVR	V	V	V	Time base	V	V
	NVR 2.2	V	V	X	File base	V	V
	NVR 2.3	V	V	X	File base	V	V

		Snapshot with Timestamp	Encoding	Audio In
MobileGo! v1.0	SNVR	X	X	X
	NVR 2.2	X	MJPEG	X
	NVR 2.3	X	MJPEG	X
MobileGo! v1.1	SNVR	V	Multiple JPEG	X
	NVR 2.2	V	MPEG	X
	NVR 2.3	V	MPEG	X